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H_{α} -PROFILE IN THE SPECTRUM OF PLEIONE IN THE BEGINNING OF THE NEW Be PHASE

Guo Yulian (1993) reported about significant variations of the H α -profile of Pleione (BU Tau) in the beginning of a new Be-phase (December 1991). He draw the conclusion that the H α -profile with double emission peak turned into a single emission peak after December 1991.

Observations of the $H\alpha$ -emission line were also carried out by the authors during the same period (September 1991-January 1992) using the Coudé-spectrograph with CCD of the 2.6 m-telescope of Crimean Astrophysical Observatory. (A detailed description of this CCD-camera is given in Beriozin et al., 1991.) The linear dispersion of the obtained spectra was 6 Å/mm (0.105 Å/pixel), the spectral interval 60 Å. For one spectrum (1991 December 13) the linear dispersion was 3 Å/mm (0.05 Å/pixel), the spectral interval 30 Å. The S/N-ratio at the continuum was >100. The data reduction was done by using the software of Crimean Astrophysical Observatory. Figure 1 illustrates the obtained $H\alpha$ -profiles. All profiles show double emission peaks certainly. In Table 1 the main parameters of the $H\alpha$ -profiles are summarized.

			Table 1					
No.	Date	W(Å)	FWHM(Å)	I_b	I,	I_b/I_r	I_{abs}	$\Delta \lambda(ext{Å})$
1	1991 September 4	28.98	6.92	4.45	4.96	0.90	3.94	2.76
2	1991 December 13	32.86	6.99	5.27	5.38	0.98	4.02	2.81
3	1991 December 14	29.20	6.94	4.70	4.92	0.96	3.91	2.84
4	1992 January 11	30.94	6.81	4.75	5.38	0.88	4.07	2.77

W	-equivalent width relative to the adjacent continuum
FWHM	-full-width-half-maximum intensity of the common $H\alpha$ -profile
I_b, I_r, I_{abs}	-intensities of the blue, red and central absorption components relatively to the continuum, respectively
I_b/I_r	-ratio of the intensities of the blue and red peaks
$\Delta \lambda$	-separation of the blue and read peaks

Our observational data led to the following conclusions:

- 1. In the beginning of the new Be-phase the double peak of the ${\rm H}\alpha$ -emission line remained. The single emission peak obtained by Guo Yulian (1993) is obviously the result of the insufficient spectral resolution of his observations (D=1.15Å/pixel).
- 2. The equivalent width of the H α -emission line does not differ very much from those published by Guo Yulian (W=26Å). The intensity of the H α -emission line of our observations is higher than that of Guo Yulian (I_{max} =3.8).
- 3. Our observations also confirm that the intensity of the $H\alpha$ -emission line has increased since the beginning of the new Be-phase.

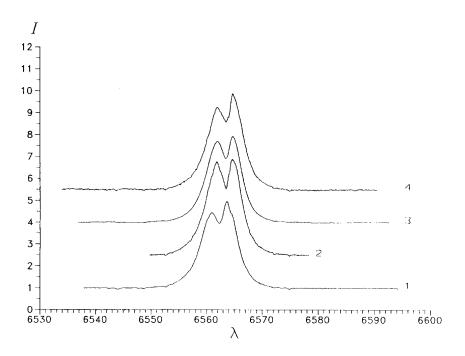


Figure 1. H α -profiles of Pleione.

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